

Hitchcock states (North American Flora 17(6): 438. 1935) in regard to *Muhlenbergia flavida* var. *strictior*: "Differing [from the species] only in the contracted panicle." Examination of the types and other available material reveals, however, that there are other differences. Although the glumes are 1.5-2 mm long in both cases, the relationship of glumes to floret is not the same due to a difference in the floret length, which is about 1 mm longer in *M. strictior*. Whereas in *M. flavida* the glumes are about two-

thirds as long as the floret, in *M. strictior* they are scarcely half as long. In view of these differences, which appear to be as significant as those separating other species in the genus, it seems advisable to reinstate the name which was used by Beal.

Although *Pringle 3034* is unusual in having the panicle branches somewhat stiffly spreading, they are not slender and lax as are those of *M. flavida*. In all other characters it agrees well with the type of *M. strictior*.

ENTOMOLOGY.—Notes on some West Indian Chrysomelidae.<sup>1</sup> DORIS H. BLAKE, Arlington, Va.

This paper deals with six new species of Chrysomelidae from the West Indies that have come to the writer's attention as well as notes on certain changes in the generic status of two other described species.

*Alethaxius bruneri*, n. sp.

Fig. 6

About 3 mm in length, oblong oval, dark lustrous green with reddish antennae, mouthparts, and tarsi, the tibiae a little darker and the femora tending to be piceous; one male, possibly immature, paler in color with reddish elytra having a green luster, the legs and body beneath reddish; all femora toothed, female with nodules on sides of elytra; thorax densely and finely punctate, not quite twice as wide as long, with two lateral teeth.

Head shining green with reddish-brown mouthparts, upper part with scattered punctures becoming denser lower down between the eyes; in one specimen a little pit on the vertex, sometimes a median impressed line; eyes entire. Antennae reddish brown or darker, about half the length of the beetle, first two joints swollen, third and fourth not so long as fifth, last five joints longer and thicker. Prothorax not quite twice as wide as long, with two lateral teeth, a broad tooth anteriorly and a smaller one at basal angle; except around the margin the surface very densely punctate. Elytra of female with tubercles along sides from the prominent humeri to the middle; in male these lacking; a slight lateral depression below the intrahumeral sulcus; basal third densely

punctate, the punctures then becoming sparser and irregularly 8-striate. Body beneath dark brown or piceous, finely alutaceous and with fine white pubescence. All femora toothed; tending to be dark brown or piceous in color, the tibiae and tarsi paler. Length 2.7-3.2 mm; width 1.6-1.8 mm.

*Type* male and 3 paratypes, U.S.N.M. no. 59313.

*Type locality*.—Palma Mocha to Pico Joaquin, Sierra Maestra, Cuba, elevation 3,500-5,300 feet, collected on May 18, 1948, by J. Acuña and J. Ferrás.

*Other localities*.—Sierra Maestra, 3,600-3,900 feet, collected on May 15-16, 1948, by J. Ferrás.

*Remarks*.—This is smaller and greener and less densely punctate than the coppery colored *A. turquensis* Blake and has a wider prothorax and darker femora.

*Blepharida irrorata* Chevrolat

*Blepharida irrorata* Chevrolat, Rev. Mag. Zool. (2) 16:182. 1864.

*Haltica adpersula* Suffrian, Arch. für Naturg. 38 (1): 185. 1868.

*Disonycha adpersula* (Suffrian), Junk Catalogue.

S. C. Bruner has recently sent me a specimen identified by Manuel Barro as *Disonycha adpersula* (Suffrian). On comparing it with Suffrian's description, I find that it agrees with that species. However, it is simply the dark color form of *Blepharida irrorata* Chevrolat, and Chevrolat's name antedates Suffrian's by four years. Suffrian assigned this color form simply to *group b* under *Haltica*, with no indication that he believed it to be a *Disonycha*.

<sup>1</sup> Received July 27, 1949.

*Aphthona schwarzi*, n. sp.

Fig. 5

About 1.5 mm in length, oblong oval, yellowish or reddish brown with a faint brownish band across the middle of the elytra and a slight darkening along the base, these markings not visible in all specimens; antennae pale with joints 8-10 dark.

Head shining and smooth with the usual line from antennal socket to upper eye and a small fovea near eye, frontal tubercles faintly indicated, interantennal area moderately broad but not produced at all. Antennae pale with joints 8-10 black, joints 2, 3, and 4 subequal and shorter than fifth. Prothorax wider than long with truncate anterior angles and arcuate sides; shining and distinctly punctate. Elytra broad, shining, distinctly striate punctate throughout, with a deeper reddish brown band across the middle and a faint shading along the base, these markings not apparent in all specimens. Body beneath shining and entirely pale, first tarsal joint of hind legs moderately long. Length 1.3-1.4 mm; width 0.8 mm.

*Type* male and 4 paratypes U.S.N.M. no. 59316.

*Type locality*.—Cayamas, Santa Clara Province, Cuba, collected on June 2 by E. A. Schwarz.

*Remarks*.—This tiny species also belongs to the group of pale brown species related to *insolita* Melsheimer, which Crotch assigned to the genus *Cerataltica*. It differs from *A. fraterna* and *A. elachia* Blake by having joints 8-10 black, the former having joints 6-9 black and *elachia* having joints 8-9 black. It is also unlike them in having a more or less distinct band across the elytra.

*Aphthona nana*, n. sp.

Fig. 3

About 1.3 mm in length, oblong oval, shining yellowish or reddish brown with slightly darker antennae; prothorax very faintly and finely punctate, elytral striae rather indistinct.

Head shining, very finely and indistinctly punctate, frontal tubercles outlined by a fine line across with two or more punctures grouped about the line at the upper edge of eye; interantennal area rather wide and somewhat produced into a carina. Antennae a little darker than rest of body, second, third, and fourth joints subequal. Prothorax a little wider than

long, the sides only feebly arcuate with an oblique anterior angle and a tiny basal tooth; lustrous, very faintly and finely punctate. Elytra a little wider than prothorax with fine striate punctation becoming very faint at sides and apex. Body beneath and legs entirely pale and shining. First joint of hind tarsi long. Length 1.3 mm; width 0.6 mm.

*Type* male and 1 paratype, U.S.N.M. no. 59315.

*Type locality*.—Caimito, Habana Province, Cuba, collected on August 23, 1917, by Harold Morrison.

*Other locality*.—Baraguá, Cuba, collected on October 14, 1927, by L. C. Scaramuzza.

*Remarks*.—Although smaller and more slender than any of the other species of the group allied to *insolita* Melsheimer, this species plainly belongs with them.

*Aphthona inornata*, n. sp.

Fig. 1

About 2 mm in length, oblong oval, shining yellowish or reddish brown with the distal joints of the antennae a little deeper brown; prothorax finely and densely punctate, the striate punctures of the elytra faint on lower sides and apex.

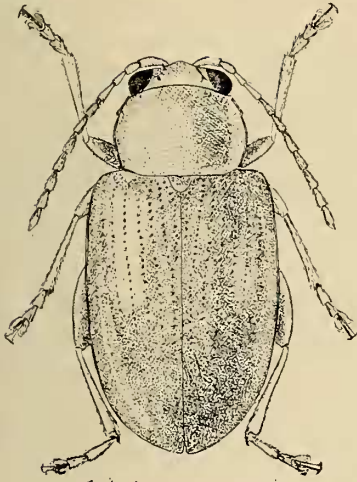
Head polished, impunctate except for one or two punctures near the top of the eye close to the oblique line running up from the antennal socket to upper margin of eye; frontal tubercles indistinct, interantennal area broad and somewhat produced. Antennae with pale basal four joints and darker distal joints, third joint shorter than fourth. Prothorax wider than long, finely and densely punctate; shining, smoothly convex, with arcuate sides. Elytra broader than prothorax, smoothly convex, shining, the striate punctures faint on the sides below the middle and towards the apex. Body beneath entirely pale, shining, very finely pubescent; legs entirely pale, the first joint of hind tarsi rather long. Length 1.8 mm; width 1 mm.

*Type* female, U.S.N.M. no. 59314.

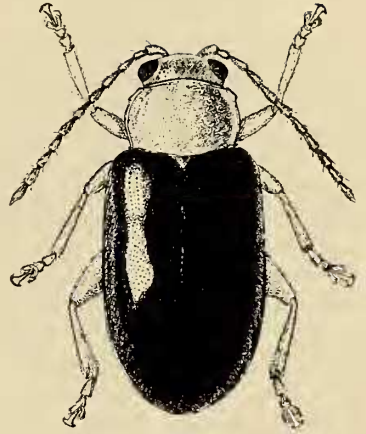
*Type locality*.—Río Piedras, Puerto Rico, collected on July 31, 1914, by T. H. Jones.

*Other locality*.—Anasco District, Puerto Rico, collected on July 3, 1917, by Harold Morrison.

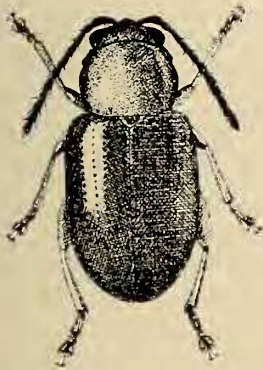
*Remarks*.—This also belongs to the *Cerataltica* group and is closely related to *insolita* Melsheimer from North America and *A. fraterna* and *elachia* Blake from Haiti, but, unlike them, it does not have the antennae in part black.



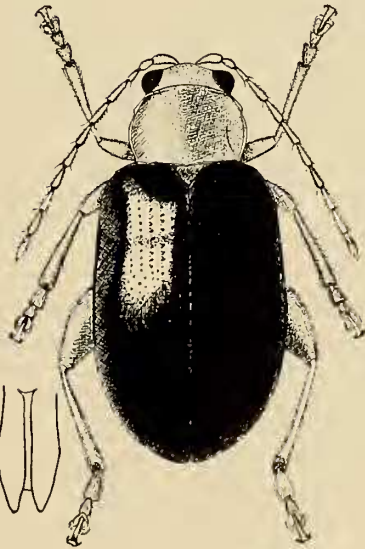
1. *Aphthona inornata*



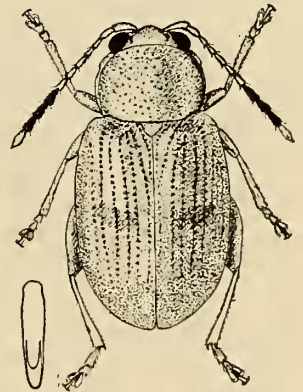
2. *Cyrsylus cyanipennis* (Weise)



3. *Aphthona nana*



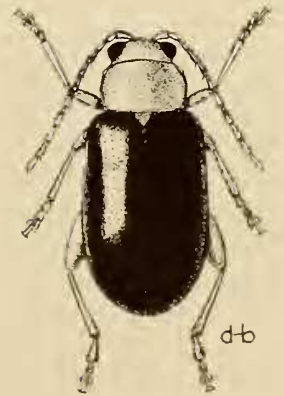
4. *Cyrsylus hispaniolao*



5. *Aphthona schwarzi*



6. *Alethaxius bruneri*



7. *Cyrsylus montserratii*

FIGS. 1-7.—West Indian Chrysomelidae.

*Cyrsylus cyanipennis* (Weise)

Fig. 2

*Podagrira cyanipennis* Weise, Arch. für Naturg. 51 (1): 165. 1885.

From 2.8–4 mm in length, elongate oblong, lustrous, reddish brown with slightly darker antennae and deep blue elytra; thorax smoothly convex and without depressions, with obliquely truncate anterior angles and nearly straight basal margin, distinctly margined; elytra striate punctate in basal third becoming confusedly punctate before the middle. Anterior coxal cavities closed, hind femora swollen, a tiny spur at the end of the hind tibiae, the first hind tarsal joint in male dilated.

Head smoothly rounded over occiput, finely punctate; eyes entire, a moderately broad interspace between antennal sockets, distinctly carinate and not extending much down lower front, above limited by a fine depressed line running across front to eye and disappearing along the upper margin of eye; no evidence of frontal tubercles or fovea near the eye. Antennae moderately stout, not reaching the middle of the elytra, first and second joints swollen, third not much longer than second, fourth a little longer. Prothorax not quite twice as wide as long with sides only slightly arcuate, nearly straight, a small tooth at basal angle; basal as well as anterior margin nearly straight across giving the thorax a rectangular appearance; surface lustrous, smoothly convex without depressions, finely punctate. Elytra wider than thorax, moderately convex, especially in apical half, with a transverse depression below the basal callosities; surface striately punctate over the basal callosities and in the depression below with indistinct punctures between the rows, the punctation becoming confused and finer before the middle. Epipleura broad, disappearing at apical angle. Body beneath entirely pale; lustrous under the light pubescence; anterior coxal cavities narrowly closed; hind femora thickened, hind tibiae round not flattened or channelled, with a tiny spur at tip; first joint of hind tarsi swollen in male, claws appendiculate, almost toothed.

*Type locality*.—St. Thomas, Virgin Islands.

*Remarks*.—The only species of this group previously described from the West Indies is *Podagrira cyanipennis*, which Weise described from St. Thomas. The name is possibly taken from DeJean's Catalogue, where it is used with-

out description for a species from Santo Domingo. The coloring, reddish brown with blue elytra, is similar to that of many species of *Podagrira*, as are also the closed coxal cavities and to a limited degree the elytral punctation, which in some species of *Podagrira* is striate in the basal half and confused below. *Podagrira* is a European and Asiatic genus of which there are no other representatives in the Western Hemisphere. In this West Indian group of three species the differences far outweigh the resemblances to *Podagrira*. The beetles are narrower and more convex, the antennae are not so much thickened, the prothorax has truncate and not toothed anterior angles and entirely lacks the small depressions at the base, the elytral punctation is much sparser, and the tibiae are not divided at the end into two lobes. As Weise himself wrote, the beetles are deceptively like *Aphthona compressa* Suffrian, a species recently assigned by the writer to a new genus *Homoschema*. The thorax is similar and the hind tibiae are alike, but the coxal cavities are narrowly closed and the elytra are more elongate with striate punctation in the basal part. The aedeagus, similar in all three West Indian species here described, is unlike any in *Homoschema* and most peculiar in that the tip is divided for some distance. The genus *Aphthona* has been used to include a great many American species that are not like the European. In this case there are too many dissimilarities to allow its inclusion. Jacoby's genus *Palaeothona* includes some species from Central America that superficially bear more of a resemblance. In fact, one species from Costa Rica even has a somewhat similar peculiarity of the aedeagus, this having a distinct cleft on the lower surface. But in *Palaeothona*, also, the coxal cavities are open, not closed. The genus *Aphthonella*, genotype *A. blamoensis* Jacoby from India, has closed cavities and a long first segment of the posterior tarsi, the elytra are regularly punctate striate, the hind tibiae (unlike this species) are channelled, and the claws appendiculate, but the illustration in *The fauna of British India* shows a quite differently shaped head and prothorax. Jacoby's genus *Cyrsylus*, composed of five species from Central America, appears to be the best fitted to include this species and the two other ones like it in the West Indies. *C. recticollis* Jacoby, a fairly common species throughout Central America, is entirely brown, but *C. crassi-*

*cornis* has metallic green elytra, and Jacoby writes that it strongly resembles a species of *Palaeothona* except for the closed coxal cavities. The only species of *Cyrskylus* examined by me, *C. recticollis*, is similar in size and shape to *cyanipennis*, the only marked difference being in the elytral punctation which is regularly striate punctate throughout. The head has a similar sculpture, the thorax is rectangular with oblique anterior angles, and a straight margined base. The first joint of the hind tarsus is long and appears to be likewise dilated in the male. The aedeagus, while not having the peculiar divided apex, is long, slender and not much curved.

This species has also been collected at Fajario, Puerto Rico, by August Busck in February 1899 and at Christiansted, St. Croix, by H. A. Beatty.

*Cyrskylus hispaniolae*, n. sp.

Fig. 4

From 4–4.5 mm in length, oval, lustrous, yellow-brown with deep blue elytra, elytra distinctly punctate.



Head shining, smooth, impunctate. Antennae with second and third joints subequal, fourth and remaining nearly twice as long as third, pale yellow-brown. Prothorax very finely and indistinctly punctate, about one-fourth as long as elytra. Elytra broad and convex with distinct rows of punctures in basal part, and between these rows of coarser punctures a row of finer, indistinct punctures; below the transverse depression the punctation becoming confused; occasionally the rows somewhat impressed. First

joint of hind tarsus long and in the male dilated. Length 3.9–4.5; width 2–2.3 mm.

*Type* male and 12 paratypes U.S.N.M. no. 59317, 2 paratypes in Museum of Comparative Zoology, Cambridge, Mass.

*Type locality*.—Froide River Valley, Haiti, collected on January 28, 1925, by W. A. Hoffman.

*Remarks*.—Except for the points noted above, this species is much like *C. cyanipennis* (Weise). It is the largest and most robust of the three species with the most distinct punctation.

*Cyrskylus montserratii*, n. sp.

Fig. 7

About 3 mm in length, elongate, lustrous, reddish brown with deep blue elytra.

Head shining, smoothly rounded over occiput with a few fine punctures on top, paler in lower front. Antennae with third joint about the same length as second and shorter than fourth. Thorax finely punctate, the sides nearly straight, about one-fourth as long as elytra. Elytra with fine striate punctures becoming confused behind the transverse impression. Undersurface lustrous. First joint of hind tarsi not quite as long as the rest together, dilated in the male. Length 2.9 mm; width 1.4 mm.

*Type* male, U.S.N.M. no. 59318.

*Type locality*.—Montserrat, West Indies, collected on March 18 by H. G. Hubbard.

*Remarks*.—This species, very similar in most points to the two preceding ones, is the smallest and the most finely punctate and also is more slender.

ZOOLOGY. — *Echinoderms from the mid-Atlantic dredged by the Atlantis in the summer of 1948.*<sup>1</sup> AUSTIN H. CLARK, U. S. National Museum.

Through Dr. Louis W. Hutchins the Woods Hole Oceanographic Institution has submitted to me for study an unusually interesting collection of sea-stars, brittle-stars, sea-urchins, and sea-lilies from the mid-Atlantic, largely from the general vicinity of the Azores. This collection was made by the *Atlantis* of the Woods Hole Oceanographic Institution on cruise no. 152, sponsored jointly by the National Geographic Society, Columbia University, and

the Woods Hole Oceanographic Institution. It is especially interesting in including a number of species that have not been found since the days of the *Challenger*, *Travailleur*, *Talisman*, *Hirondelle*, and *Princesse-Alice*. For the pleasure of studying this collection I am deeply indebted to the Woods Hole Oceanographic Institution and to Dr. Hutchins.

ASTEROIDEA

ASTROPECTINIDAE

*Leptychaster arcticus* (M. Sars)

*Astropecten arcticus* M. Sars, Reise i Lofoten og Finmarken, Nyt Mag. for Naturvid. 6: 161. 1851.

<sup>1</sup> Contribution from the Woods Hole Oceanographic Institution No. 471. Published by permission of the Secretary of the Smithsonian Institution. Received April 25, 1949.